

1 **CLAIMS**

2 **1.** A method comprising:
3 specifying an object having first and second intersecting hierarchies;
4 illustrating the object with respect to the first hierarchy; and
5 presenting a second intersecting hierarchy selection option to illustrate the
6 object with respect to the second intersecting hierarchy in response to user
7 selection.

8
9 **2.** A method as recited in claim 1 wherein the object is illustrated with
10 respect to the first intersecting hierarchy as a three-dimensional structure.

11
12 **3.** A method as recited in claim 1, wherein the first and second
13 hierarchies are determined by an administrator.

14
15 **4.** A method as recited in claim 1:
16 wherein the first and second intersecting hierarchies comprise a plurality of
17 additional objects;
18 wherein the method further comprises:
19 presenting context sensitive information for the object and an
20 additional object, the context sensitive information for the additional object
21 comprising an indication of a third hierarchy; and
22 choosing the indication corresponding to the third hierarchy; and
23 in response to choosing:
24
25

1 (a) if the first hierarchy intersects the third hierarchy,
2 illustrating both the object and the additional object with respect to the third
3 hierarchy; and

4 (b) if the first hierarchy does not intersect the third hierarchy,
5 illustrating only the additional object with respect to the third hierarchy.
6

7 **5.** A method as recited in claim 1 further comprising:
8 in response to the specifying:

9 (a) displaying additional objects that correspond the object;

10 (b) exposing one or more attributes that correspond to the object;

11 choosing an attribute; and

12 in response to the choosing, filtering the additional objects based on the
13 chosen attribute.
14

15 **6.** A method as recited in claim 1 further comprising:

16 selecting the second intersecting hierarchy selection option; and

17 in response to the selecting, illustrating the object with respect to the
18 second intersecting hierarchy.
19

20 **7.** A method as recited in claim 6, wherein the illustrating further
21 comprises:

22 visually morphing from the first intersecting hierarchy to the second
23 intersecting hierarchy.
24
25

1 **8.** A method as recited in claim 6, wherein the illustrating further
2 comprises:

3 visually morphing from the first intersecting hierarchy to the second
4 intersecting hierarchy, one or more additional objects being illustrated with respect
5 to the first intersecting hierarchy; and

6 the visually morphing comprising:

7 simultaneously illustrating at least a portion of both the first and
8 second intersecting hierarchies and graphically pivoting about the object to
9 temporarily show a relationship of the objects with respect to the first and second
10 intersecting hierarchies.

11
12 **9.** A method as recited in claim 6, wherein the illustrating further
13 comprises:

14 visually morphing from the first intersecting hierarchy to the second
15 intersecting hierarchy, one or more additional objects being illustrated with respect
16 to the first intersecting hierarchy; and

17 the visually morphing comprising:

18 overlaying at least a portion of both the first and second intersecting
19 hierarchies simultaneously to temporarily illustrate a relationship of the objects
20 with respect to the first and second intersecting hierarchies.

21
22 **10.** A method as recited in claim 1, wherein the object is a first object,
23 and the method further comprises:

24 displaying a second object that corresponds to the specified first
25 object;

1 selecting the second object; and
2 in response to selecting, illustrating both the first and second objects
3 with respect to the first intersecting hierarchy.
4

5 **11.** A method as recited in claim 10, further comprising:
6 selecting the second intersecting hierarchy selection option; and
7 in response to the selecting, illustrating the first and second objects with
8 respect to the second intersecting hierarchy.
9

10 **12.** A method as recited in claim 10, further comprising:
11 removing the first object such that only the second object is illustrated with
12 respect to the first intersecting hierarchy.
13

14 **13.** A computer-readable medium storing computer-executable
15 instructions that, when executed on a computer, performs the method of claim 1.
16

17 **14.** A method comprising:
18 presenting an object within a first hierarchy of information; and
19 switching from the first hierarchy of information to a second hierarchy of
20 information to present the object within the second hierarchy of information.
21

22 **15.** A method as recited in claim 14, wherein the presenting and the
23 switching are performed using three-dimensional graphical objects.
24
25

1 **16.** A method as recited in claim 14, wherein the switching further
2 comprises:

3 gradually turning an image of the first hierarchy of information into the
4 second hierarchy of information, such that at least a portion of both the first and
5 second hierarchies are momentarily visible.

6
7 **17.** A method as recited in claim 14, wherein the switching further
8 comprises:

9 rotating the second hierarchy about the pivot axis onto the first
10 hierarchy; and

11 fading out the first hierarchy to leave only the second hierarchy.

12
13 **18.** A method as recited in claim 17, wherein the first and second
14 structures are respective tree structures.

15
16 **19.** A method as recited in claim 14, wherein the switching further
17 comprises:

18 gradually turning an image of the first hierarchy of information into the
19 second hierarchy of information about a pivot axis that intersects the object.

20
21 **20.** A computer-readable medium storing computer-executable
22 instructions that, when executed on a computer, performs the method of claim 14.

23
24 **21.** A method comprising:

25 presenting an object with respect to a first hierarchy of information; and

switching from the first hierarchy of information to a second hierarchy of information using a visual pivot technique in which the second hierarchy of information is visually pivoted about a pivot axis intersecting the object and the object is presented with respect to the second hierarchy of information.

22. A method comprising:
presenting a first object and a second object with respect to a first hierarchy of a polyarchy;
selecting a second hierarchy of the polyarchy; and
in response to the selecting, presenting the first and second objects with respect to the second hierarchy.

23. A method as recited in claim 22, further comprising:
managing the first and second objects with respect to the first and second hierarchies.

24. A graphical user interface comprising:
a first area to facilitate user specification of an object that may be represented in first and second hierarchies;
a second area to illustrate the object with respect to the first hierarchy; and
a third area to facilitate user selection of the second hierarchy so that, upon selection of the second hierarchy, the second area is changed to illustrate the object with respect to the second hierarchy.

1 **25.** A graphical user interface as recited in claim 24, wherein the
2 graphical user interface changes the second area to illustrate the object with
3 respect to the second intersecting hierarchy by visually morphing from the first
4 hierarchy to the second hierarchy.

5
6 **26.** A graphical user interface as recited in claim 24, wherein the
7 graphical user interface changes the second area to illustrate the object with
8 respect to the second intersecting hierarchy by:

- 9 (a) rotating the second hierarchy about a pivot axis onto the first hierarchy;
10 and
11 (b) fading out the first hierarchy to leave only the second hierarchy.

12
13 **27.** A graphical user interface as recited in claim 24 wherein:
14 the object is being displayed in the second area in context of a current
15 hierarchy, the current hierarchy being selected from a group of hierarchies
16 consisting of the first and second hierarchies; and

17 the graphical user interface further comprises a fourth area to display the
18 specified object and additional objects that correspond to the specified object, the
19 fourth area facilitating user selection of an additional object so that, upon selection
20 of the additional object, the second area is changed to illustrate the object and the
21 additional object within the current hierarchy.

1 **28.** A graphical user interface as recited in claim 27, further comprising
2 a fifth area to display the object and the one or more additional objects in a list, the
3 object and the one or more additional objects being listed objects, the list
4 facilitating removal of a listed object from the second area so that, upon selection
5 of a listed object, the selected object is removed from the second area.

6
7 **29.** A graphical user interface as recited in claim 24 wherein:
8 the object is being displayed in the second area in context of a current
9 hierarchy, the current hierarchy being selected from a group of hierarchies
10 consisting of the first and second hierarchies;

11 the graphical user interface further comprises:

12 (a) a fourth area to display the specified object and additional objects
13 that correspond to the specified object, the fourth area facilitating user selection of
14 an additional object so that, upon selection of the additional object, the second
15 area is changed to illustrate the object and the additional object within the current
16 hierarchy; and

17 (b) a fifth area to display attributes of the specified object, the fourth
18 area facilitating filtering of the additional objects displayed in the fourth area.

19
20 **30.** A computer-readable medium storing computer-executable
21 instructions that, when executed on a computer perform operations for:

22 presenting an object within a first hierarchy of information; and

23 switching from the first hierarchy of information to a second hierarchy of
24 information to present the object within the second hierarchy of information.

1 **31.** A computer-readable medium as recited in claim 30, wherein the
2 switching further comprises operations for:

3 gradually turning an image of the first hierarchy of information into the
4 second hierarchy of information, such that at least a portion of both the first and
5 second hierarchies are momentarily visible.
6

7 **32.** A computer-readable medium as recited in claim 30, wherein the
8 switching further comprises operations for:

9 rotating the second hierarchy about the pivot axis onto the first
10 hierarchy; and

11 fading out the first hierarchy to leave only the second hierarchy.
12

13 **33.** A computer-readable medium as recited in claim 30, wherein the
14 switching further comprises operations for:

15 gradually turning an image of the first hierarchy of information into the
16 second hierarchy of information about a pivot axis that intersects the object.
17

18 **34.** A computer-readable medium as recited in claim 30, wherein the
19 presenting and switching further comprises operations for presenting the object
20 within the first and second hierarchies using respective tree structures.
21

22 **35.** An apparatus comprising a processor coupled to a computer
23 readable medium storing computer-executable instructions as recited in claim 29,
24 the processor configured to execute the computer executable instructions.
25

1 **36.** A system comprising:

2 a computer coupled to a data store, the data store comprising a plurality of
3 databases, the computer comprising a processor configured to execute computer
4 program instructions for:

5 specifying an object from the data store;

6 in response to specifying, receiving data from the data store, the data
7 comprising first and second hierarchies of information that correspond to the
8 specified object;

9 illustrating the object within the first hierarchy; and

10 presenting an indication of the second hierarchy for user selection to
11 illustrate the object with respect to the second hierarchy.

12
13 **37.** A system as recited in claim 36, wherein the processor is further
14 configured to execute computer program instructions for managing the object with
15 respect to the first and second hierarchies.

16
17 **38.** A system as recited in claim 36, wherein the processor is further
18 configured to execute computer program instructions comprising:

19 selecting the second intersecting hierarchy; and

20 in response to the selecting, illustrating the object with respect to the
21 second intersecting hierarchy.

1 **39.** A system as recited in claim 38, wherein the illustrating further
2 comprises:

3 visually morphing from the first intersecting hierarchy to the second
4 intersecting hierarchy.

5
6 **40.** A system as recited in claim 39, wherein one or more additional
7 objects are illustrated with respect to the first intersecting hierarchy; and

8 the visually morphing comprising simultaneously illustrating at least a
9 portion of both the first and second intersecting hierarchies and graphically
10 pivoting about the object to temporarily show a relationship of the objects with
11 respect to the first and second intersecting hierarchies.

12
13 **41.** A system as recited in claim 36, wherein the object is a first object,
14 and processor is further configured to execute computer program instructions
15 comprising:

16 displaying a second object that corresponds to the specified first object;

17 selecting the second object; and

18 in response to selecting, illustrating both the first and second objects with
19 respect to the first intersecting hierarchy.